produced by the hybridomas designated HB-12612, HB-12613, HB-12614, HB-12616, HB-12618, HB-12615, or HB-12617, respectively, as deposited with the American Type Culture Collection.--

-- 54. (new) The antibody of claim 53 which is a monoclonal antibody.--

-- 55. (new) The antibody of claim 53 which is a polyclonal antibody.--

-- 56. (new) The antibody of claim 53 which is a chimeric antibody.--

-- 57. (new) The antibody of claim 56, wherein the chimeric antibody is a humanized antibody.--

-- 58. (new) A cell that produces the monoclonal antibody of claim 53.--

-- 59. (new) A recombinant protein comprising the antigen binding region of the antibody of claim 53.--

-- 60. (new) An Fab, F(ab')2 or Fv fragment of the antibody of claim 53.--

-- 61. (new) An immunoconjugate comprising a cytotoxic agent and the antibody of claim 53.--

-- 62. (new) An immunoconjugate comprising a cytotoxic agent and the recombinant protein of claim 59.--

-- 63. (new) The immunoconjugate of claim 61 or 62, wherein the cytotoxic agent is selected from a group consisting of ricin, ricin A-chain, doxorubicin, daunorubicin, taxol, ethiduim bromide, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, dihydroxy anthracin dione, actinomycin D, diphteria toxin, *Pseudomonas* exotoxin (PE) A, PE40, abrin, abrin A chain, modeccin A chain, alpha-sarcin, gelonin, mitogellin,

retstrictocin, phenomycin, enomycin, curicin, crotin, calicheamicin, sapaonaria officinalis inhibitor, maytansinoids, and glucocorticoidricin.--

-- 64. (new) A method for detecting the presence of a PSCA protein in a sample comprising contacting the sample with the antibody of claim 53 and detecting the binding of the antibody with the PSCA protein in the sample.--

-- 65. (new) The method of claim 64, wherein the detecting comprises:

a. contacting the sample with the antibody capable of forming a complex with the PSCA protein in the sample; and

b. determining whether any complex is so formed.

-- 66. (new) A method for detecting the presence of a PSCA protein in a sample comprising contacting the sample with the recombinant protein of claim 57 and detecting the binding of the recombinant protein with the PSCA protein in the sample.--

-- 67. (new) The method of claim 66, wherein the detecting comprises:

a. contacting the sample with the recombinant protein capable of forming a complex with the PSCA protein in the sample; and

b. determining whether any complex is so formed.--

-- 68. (new) The method of claim 64 or 66, wherein the sample is a tissue or biological fluid.--

-- 69. (new) The method of claim 68, wherein the tissue is bone, bone marrow, bladder tissue, prostate tissue, colon cells, or pancreatic neuroendocrine cells.--

-- 70. (new) The method of claim 68, wherein the biological fluid is urine or blood serum. --

-- 71. (new) The method of claim 64, wherein the antibody is labeled so as to produce a detectable signal with a compound selected from the group consisting of a radiolabel, an enzyme, a chromophore and a fluorescer.--

-- 72. (new) The method of claim 66, wherein the recombinant protein is labeled so as to produce a detectable signal with a compound selected from the group consisting of a radiolabel, an enzyme, a chromophore and a fluorescer.--

-- 73. (new) A method for monitoring the course of any of the cancers selected from the group consisting of prostate cancer, bladder carcinoma and bone metastases of prostate cancer in a subject which comprises quantitatively determining in a first sample from the subject the presence of a PSCA protein by the method of claim 64 or 66 and comparing the amount so determined with the amount present in a second sample from the subject, such samples being taken at different points in time, a difference in the amounts determined being indicative of the course of the cancer.

-- 74. (new) A method for diagnosing in a subject any of the cancers selected from the group consisting of prostate cancer, bladder carcinoma and bone metastases of prostate cancer which comprises quantitatively determining in a cell sample from the subject the number of cells associated with the PSCA protein using the antibody of claim 53 and comparing the number of cells so determined to the amount in a sample from a normal subject, the presence of a measurable different amount indicating the presence of the cancer.--

-- 75. (new) A method for diagnosing in a subject any of the cancers selected from the group consisting of prostate cancer, bladder carcinoma and bone metastases of prostate cancer which comprises quantitatively determining in a cell sample from the subject the number of cells associated with the PSCA protein using the recombinant protein of claim 59 and comparing the number of cells so determined to the amount in a sample from a normal subject, the presence of a measurable different amount indicating the presence of the cancer.--

-- 76. (new) A method for diagnosing in a subject any of the cancers selected from the group consisting of prostate cancer, bladder carcinoma and bone metastases of prostate cancer which comprises quantitatively determining in a sample from the subject the amount of PSCA protein expressed by the cells using the antibody of claim 53 and comparing the amount so determined to the amount in a sample from a normal subject, the presence of a measurable different amount indicating the presence of the cancer.--

-- 77. (new) A method for diagnosing in a subject any of the cancers selected from the group consisting of prostate cancer, bladder carcinoma and bone metastases of prostate cancer which comprises quantitatively determining in a sample from the subject the amount of PSCA protein expressed by the cells using the recombinant protein of claim 59 and comparing the amount so determined to the amount in a sample from a normal subject, the presence of a measurable different amount indicating the presence of the cancer.--

-- 78. (new) The method of claim 76 or 77, wherein the sample is a cell sample or a biological fluid sample. --

-- 79. (new) The method of claim 78, wherein the cell sample is a tissue sample from bone, bone marrow, or prostate tissue. --

-- 80. (new) The method of claim 78, wherein the biological fluid is urine or blood serum. --

-- 81. (new) A method for selectively inhibiting a cell expressing PSCA antigen comprising reacting the immunoconjugate of claim 61 or 62 with the cell in an amount sufficient to inhibit the cell.--

-- 82. (new) A method of inhibiting the growth of tumor cells expressing PSCA comprising administering to a subject the antibody of claim 53 which binds specifically to the

extracellular domain of PSCA in an amount effective to inhibit growth of the tumor cells.--

-- 83. (new) The method of claim 82, wherein said antibody is conjugated to a cytotoxic agent.--

-- 84. (new) The method of claim 83, wherein said cytotoxic agent is a radioactive isotope. --

-- 85. (new) The method of claim 83, wherein said cytotoxic agent is selected from the group consisting of ricin, ricin A-chain, doxorubicin, daunorubicin, taxol, ethiduim bromide, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, dihydroxy anthracin dione, actinomycin D, diphteria toxin, *Pseudomonas* exotoxin (PE) A, PE40, abrin, arbrin A chain, modeccin A chain, alpha-sarcin, gelonin, mitogellin, retstrictocin, phenomycin, enomycin, curicin, crotin, calicheamicin, sapaonaria officinalis inhibitor, and glucocorticoid.--

-- 86. (new) The method of claim 84, wherein said radioactive isotope is selected from the group consisting of ^{212}Bi, ^{131}I, ^{131}In, ^{90}Y and ^{186}Re.--

-- 87. (new) A pharmaceutical composition useful in killing human cells expressing the PSCA antigen on the cell surface, comprising a pharmaceutically effective amount of the antibody of claim 53 and a pharmaceutically acceptable carrier. --

-- 88. (new) A kit comprising the antibody of claim 53 and a detectable label.--

REMARKS

Claims 1-52 were pending. Applicants canceled claims 2-52 and added new claims 53-88. Accordingly, claim 1 and new claims 53-88 are being examined.